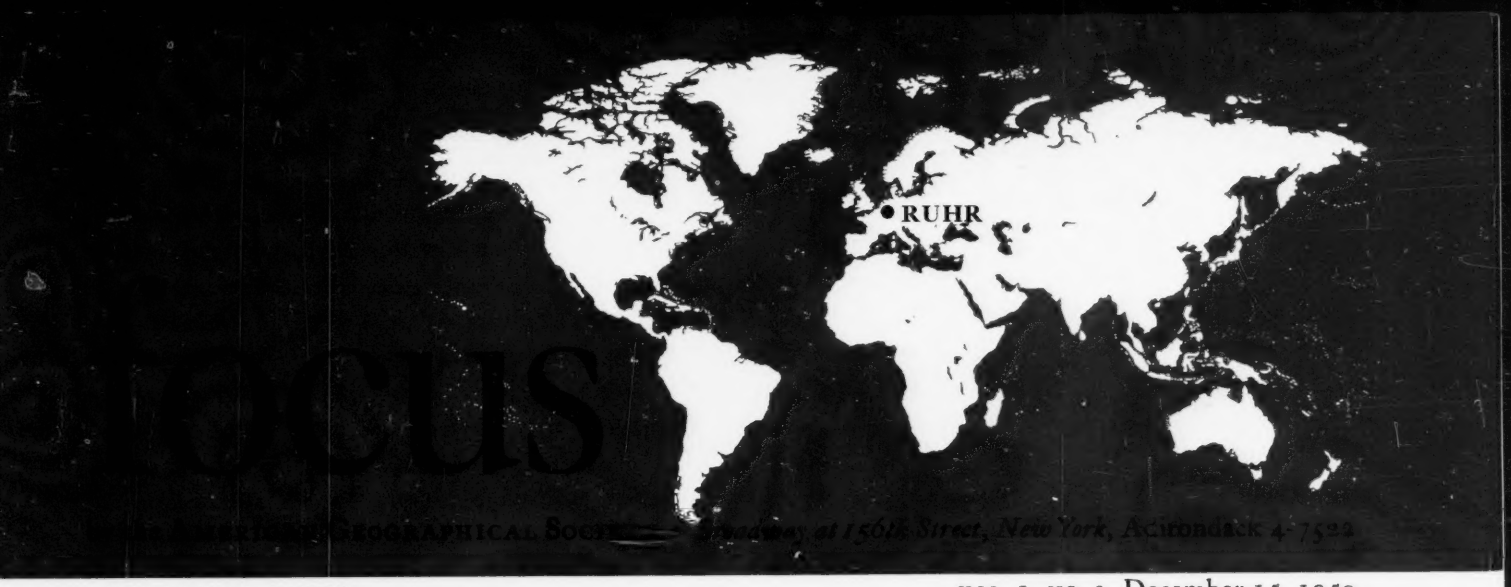

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The Ruhr

The Ruhr is a very small area to have figured so prominently in the news. At most it is only about 50 miles from west to east and even less from south to north. Yet within this area there are more than 6 million inhabitants, who are almost wholly dependent on its industries. There is a steel-producing capacity almost as great as that of the United Kingdom, and coal mines capable of yielding 120 million tons of coal a year.

This small area is of the greatest significance, because it has been the arsenal from which the Germany of the Kaiser and of Hitler equipped and supplied its armies and navies, and it may again produce munitions for use either for or against the West. For this reason it is important that we should know how this complex industrial area operates, what geographical problems it presents, and how their solution will further or hinder the cause of the Western democracies. In any future conflict the Ruhr may well serve to tip the balance.

The first map shows the position of the Ruhr in northwest Germany, close to the Belgian and Dutch frontiers. In the south the Ruhr is hilly, and large areas are forested. In the north it is low and rolling; movement is easy, and much of the land that has not been built upon is agricultural. Most of the cities and towns lie on the northern plain. They are separated by "green belts," which are larger and more numerous than in most other European industrial areas.

Across the western edge of the Ruhr flows the Rhine, a great highway of trade between South Germany and the Netherlands. The industrial area is drained by the Ruhr, Emscher, and Lippe Rivers. Look at the second map and notice how the courses of these rivers lie parallel to one another and also parallel to the edge of the hills to the south. Canals have been built along the Emscher and Lippe valleys and at their east ends are joined to the Dortmund-Ems Canal, by which they are linked with the German North Sea ports of Emden and Bremen.

The Ruhr industrial area has grown up within the last 100 years. Its origins lay in the primitive iron refining carried on in the hills, where there were small deposits of iron ore, as well as charcoal for the furnaces and running streams to power the machines and the hammers. It was not until after 1850 that industry spread on any considerable scale from this early center into the area that we now call the Ruhr. It was attracted by the beds of coal, much of which was suitable for coking and thus for the iron furnace. In the years

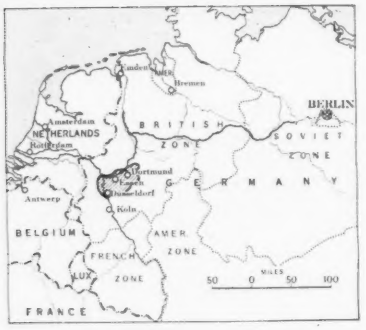

FIG. 1—The Ruhr in its regional setting

1850 to 1870 many steelworks were built. Local supplies of ore were soon exhausted and the Ruhr came to depend more and more on imports from foreign countries.

As industry developed in this area, so the cities grew in size and importance. There are today three cities each with more than half a million inhabitants: Essen, Dortmund, and Düsseldorf. There are 14 cities with more than 100,000 inhabitants.

But without the coal field there would be no Ruhr as we know it today. The coal seams reach the surface along the valley of the Ruhr (as may be seen in the third map), and dip northward beneath the North German Plain. Mining began along the southern edge, but for more than a hundred years it has been spreading slowly northward, with the opening of mines of ever-increasing depth. The oldest mines are in the Ruhr Valley, which has thus given its name to the region; the newer are in the valleys of the Emscher and the Lippe. There seems to be no limit to this northward expansion except that set by the increasing depth and cost of mining.

The coal varies in quality. The lowermost seams, which come to the surface in the south, are anthracitic. Above them are, in order, coking, gas, and flame coals. Of these the coking coals, which are mined in the Emscher Valley, are of the greatest industrial importance.

Between the two wars the Germans concentrated production in a reduced number of larger mines. At many of these, coking furnaces were erected. Here the coal is pulverized, blended, and coked. The coke is sent to the blast-furnaces, and the gas from the retorts is used for various heating purposes in the steelworks; the exhaust gases from the furnaces go to fire the retorts in the cokeries. Coal mining and steelworking have thus been integrated geographically, not merely in the balance sheets of the operating companies.

The abundance of coal has led to the erection of synthetic-fuel plants, whose production of fuel oil from coal was of vital importance to the German military machine during the last war.

Before the Second World War, nearly 40 per cent of the coal mined was used within the Ruhr, about 30 per cent was sent to other parts of Germany, and about 30 per cent was exported. Exports went chiefly to France, Italy, the Netherlands, Belgium, Luxembourg, Scandinavia, and Switzerland, countries with small or inadequate coal reserves of their own. These countries have come to rely heavily on German exports, and one of the problems facing the Allied administration in Germany today has been to revive the former export trade.

The second great industry of the Ruhr is the manufacture of iron and steel. Germany has little iron ore, and the Ruhr relies to the extent of three-quarters of its requirements on imports from Sweden, France,

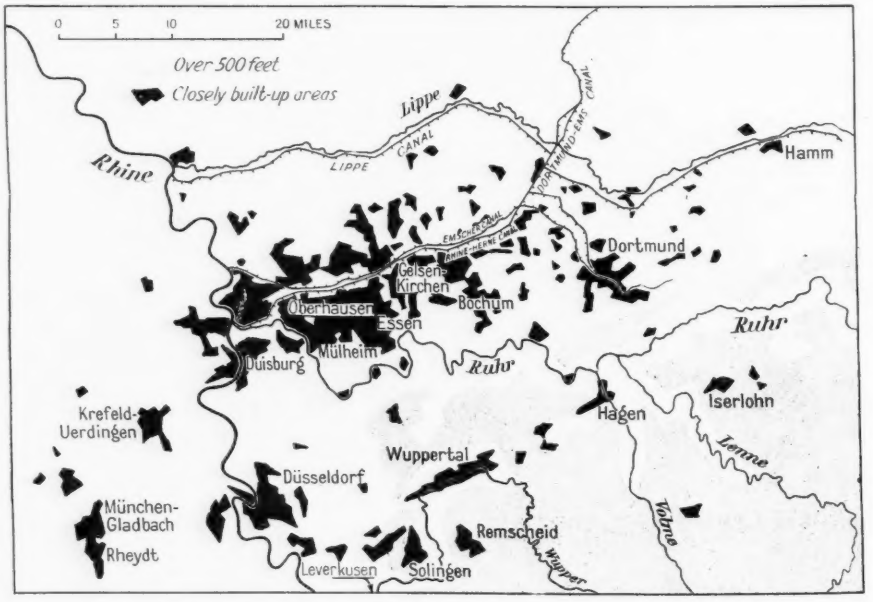

FIG. 2—Closely built-up industrial and mining areas and waterways of the Ruhr

Spain, North Africa, and elsewhere. Some comes in through the German North Sea ports, but most through the Dutch ports, whose prosperity depends greatly on the trade of the Ruhr. Most of the steelworks are well placed on the Rhine or its neighboring canals for the import of ore.

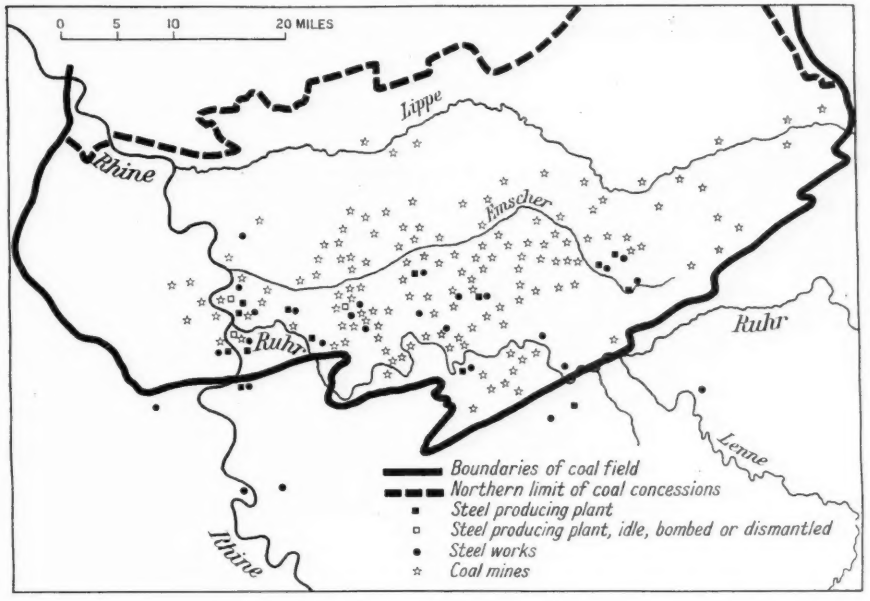

FIG. 3—Coal mines and steelworks of the Ruhr

The smelting industry is carried on in about 15 separate works, all on the plain between the Rhine in the west and Dortmund in the east. At all of them the steel is rolled into sheets, bars, and girders. Steel-using industries, especially those making castings, boilers, tubes, and wire, lie not only in the neighborhood of the steel plant but also scattered throughout the Ruhr area.

South of the area of large towns and heavy industries, in the hills where the ancient craft of smelting was carried on, there are many metallurgical industries which call for refinement and skill rather than for large quantities of metal and fuel: the manufacture of screws, nuts, springs, and locks, of high-quality alloy steels, of cutting and machine tools. Here industry is carried on in small workshops, and handwork and skill count for more than mass production. The towns of Remscheid and Solingen are centers of this branch of the metal industry.

In terms of war potential, the northern plain, with its huge factories and large cities, produces armor plate, guns, and heavy castings; the hilly area to the south, the motors, machines, precision instruments, and fuses.

Although the coal mining and steel industries dominate the manufactures of the Ruhr, chemicals and textiles are also of some importance. Chemicals are made in several of the larger cities, notably Duisburg, Leverkusen, and Düsseldorf. The textile manufactures are now concentrated in just two areas: the Wupper Valley, in which lies the great cloth-making city of Wuppertal, and the cities west of the Rhine of München-Gladbach, Rheydt, and Krefeld-Uerdingen.

The Ruhr thus has a varied industrial development, but the coal and steel industries stand supreme. The area accounted for five-sixths of German coal production before 1939, and more than two-thirds of German steel.

In the hands of a military-minded government the Ruhr would assume a truly frightening importance. In 1923 the French and Belgians occupied the Ruhr, hoping in this way to control its use and influence German policy. Germany has twice within a generation broken the peace of Europe. In 1945 the victorious powers held that control of the Ruhr was at least one way of preventing German rearmament and aggression. This control is now being achieved by a close supervision of the Ruhr industries through an organization known as the Ruhr Authority. Industrial plant thought to have mainly a military purpose has been dismantled, and the cartels and trusts that formerly controlled the industrial machine and harnessed it to Hitler's war effort have been broken up.

This policy has aroused antagonism among many Germans and, locally at least, has created a serious unemployment problem where large works have been closed down. At the same time, it has not altogether satisfied the anxieties of France, which fears the prospect of a rearmed Germany, even now when greater dangers threaten.